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Federal Communications Commission
Office of Secretary

Before the
Federal Communications Commission
Washington, DC

In the Matter of	)	MM Docket No. 87-268
	)	
Advanced Television Systems and Their	)	
Impact upon the Existing	)	
Television Broadcast Service	)	

To: The Commission

PETITION FOR RECONSIDERATION

Kentuckiana Broadcasting, Inc., licensee of Station WFTE(TV), Salem, Indiana, by its attorney, submits this Petition for Reconsideration of the Fifth Report and Order, FCC 97-116 (April 21, 1997) and Sixth Report and Order, FCC 97-115 (April 21, 1997) in this proceeding. With respect thereto, the following is stated:

1. The entire Digital Television ("DTV") proceeding has been the subject of much debate. While there seems to be no question that DTV should be implemented within a timetable that will make utilization of the technology reasonably accessible to the public, the methodology and precise spectrum that should be assigned, and specifically what channels and what assumptions should be used in assigning the channels, all must still be thoroughly studied in order to assure that there is no inadvertent harm inflicted on existing broadcasters or the public.

2. In this vein, as seen in the attached Engineering Statement, the DTV channel currently proposed for use by WFTE appears not to be workable. WFTE currently operates on Channel 58, and DTV Channel 57 has been assigned for its use as a digital channel. As a result, the assigned DTV Channel has a letter "C", and Kentuckiana's Consulting Engineer has expressed serious concerns whether the degree of precise frequency control necessary to allow

operation on both Channel 57 (digital) and Channel 58 (analog) during the transition period is possible. See Attachment 1. Moreover, due to the fact that OET Bulletin 69 has not yet been released to the general public, it has been impossible for Kentuckiana's Consulting Engineer to provide a recommendation concerning an alternative channel on which digital service for Salem, Indiana, should be proposed.

3. Consequently, the Commission should make a careful re-examination of the allotment to be paired with Channel 58, Salem, Indiana. It appears relatively certain that the channel currently proposed is not workable, and should not become a part of the digital table of allotments when the Table is finalized.

WHEREFORE, it is respectfully requested that the Commission reconsider its prior determinations, and revise its Report and Order in accord with the information provided herein.

Respectfully requested,

KENTUCKIANA BROADCASTING, INC.

By: _____
Dan J. Alpert

Its Attorney

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June 13, 1997

ATTACHMENT 1

ENGINEERING STATEMENT
IN SUPPORT OF
PETITION FOR RECONSIDERATION
MM DOCKET 87-268
ON BEHALF OF
KENTUCKIANA BROADCASTING INC.

JUNE 1997

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

This engineering statement has been prepared on behalf of Kentuckiana Broadcasting Inc., licensee of Station WFTE(TV), Salem, Indiana. This statement is in support of a Petition for Reconsideration for the Sixth Report and Order, MM Docket No. 87-268[1] ("Report and Order").

WFTE(TV) has authorized this firm to conduct studies and review the various aspects of the Report and Order as it applies to WFTE(TV). This study was conducted on the impact of the Report and Order on WFTE's current NTSC service area and the interference which could result to existing service by new digital operations and the service replication by the assigned digital television ("DTV") operation.

WFTE(TV) operates on NTSC Channel 58 with a directional ERP of 1780 kW. In MM Docket 87-268, WFTE(TV) has been assigned DTV Channel 57 with an ERP of 50 kW and a height above average terrain of 346 meters.

COVERAGE ASSESSMENT

A study of the WFTE existing NTSC and proposed DTV service area has been performed by using the National Telecommunications and Information Administration Institute for Telecommunication Sciences ("ITS") computer using the Communication System Performance Model--Point to Point Irregular Terrain HDTV Model ("HDTV

[1]MM Docket No. 87-268, "In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service." adopted April 3, 1997.

model"). The HDTV model uses the Longley-Rice propagation methodology and evaluates a grid cell size of 0.75-1.5 km with 3-second terrain data intervals between every 90 meters to 100 meters at one degree intervals. This HDTV model was selected since it is believed it generally replicates the Commission's DTV assignment model. An ITS representative indicates that the HDTV Model follows the Commission's decisions in the Report and Order.

ENGINEERING ISSUES

The Federal Communications Commission ("Commission") has not yet provided information for examining coverage and interference issues. Reference is made in Sections 73.622 and 73.623 concerning OET Bulletin 69, however, the Commission has not made that report available. WFTE(TV) urges the Commission to release this document as well as Commission processing procedures. WFTE believes this information is critical in making an evaluation of its DTV implementation strategy. Further, WFTE cannot make an assessment whether its inherent service area is being adequately protected or whether it is replicated. Incomplete information regarding Commission criteria will hamper WFTE from making an evaluation for higher DTV power. WFTE will, if necessary, make application for higher power.

WFTE, for the assigned DTV channel, has a letter C. WFTE has serious reservations that this precise frequency control can be implemented. Last year in the Fifth

Notice of Proposed Rule Making[2], a monitoring service (Burkhardt Monitoring Service) provided comments that when NTSC and DTV transmitters are not collocated then one of two alternatives must be used. The first is to receive the signal of the NTSC station so that it can be used to control the DTV pilot frequency. WFTE does not believe that this approach is economically feasible for several reasons. One is if multipath UHF propagation conditions exist can result in improper frequency difference. The second concern is the ability to receive a low level NTSC signal[3] that is first adjacent channel to the DTV signal at the DTV transmitter site. The second approach is ultra precise frequency control. This requires both the NTSC station and the DTV ultra precise frequency control to be operational. This could require the DTV transmitter to reduce power, if a failure occurs with the ultra precise frequency control of the first adjacent channel NTSC or the DTV operation.

As indicated above, the DTV channel is first adjacent to its NTSC operation. Based upon tests performed in October 1996 by the Advanced Television Technology Center, WFTE believes that the first-adjacent channel criteria adopted for the Commission's model may be overly optimistic. It is understood that all first adjacent channel ratios used in the DTV model are based upon data gathered using a linear (Class A) testbed. With the

[2]Fifth Further Notice of Proposed Rule Making, 11FCC Rcd 6235 (1996)

[3]DTV Channels 55 and 57 assigned locally and bracket the fringe Channel 56 NTSC signal.

relatively high average UHF powers required by most DTV facilities can only be developed at this time with RF amplifiers operating in the Class A-B mode. Generating high levels of R-F in any device that is not perfectly linear will result in intermodulation products which will require proper engineering consideration. Similarly, non-linear propagation path effects such as multipath are engineering factors that need to be addressed by providing an adequate margin. WFTE urges the Commission to revisit these issues and modify where necessary these basic allocation criteria.

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.

Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 12th day of June, 1997.

Notary Public

My Commission Expires: 7/28/98